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Yoshifumi Nishida

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11/13/2007

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EXAMINER

GREENE, JOSEPH L.

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/821,105

Applicant(s)

NISHIDA, YOSHIFUMI

Examiner

Joseph L. Greene

Art Unit

4152

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 04/07/2004.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 1 – 39 are pending in this application

***Claim Objections***

2. Dependency:

(a) Claim 34 is dependent upon claim 27 causing a lack of antecedent basis for "said changing of the size of packets." For examination purposes, it will be assumed that claim 34 is dependent upon claim 33.

3. Formalities:

(a) Claim 37, line 3 states a "number of packets receptions." Packets should be in singular form.

4. Lack of antecedent basis:

(a) Claim 1 line 5, claim 2 line 2, claim 3 line 1, and claim 5 line 2 recite the limitation "back-to-back packets." There is insufficient antecedent basis for this limitation in the claim.

(b) Claims 6 line 3 and claim 10 lines 1 and 2 recite the limitation "the receiver." There is insufficient antecedent basis for this limitation in the claim.

© Claim 10 recites the limitation "m" in line 3. There is insufficient antecedent basis for this limitation in the claim.

(d) Claim 13 recites the limitation "said congestion estimating" in line 10. There is insufficient antecedent basis for this limitation in the claim.

### ***Specification***

5. This disclosure is objected to because of the following minor informalities.

Definitions not present/unclear:

- (a) The abbreviation MTU [0009] should directly follow its definition.
- (b) RMSS [0009] is not defined.
- (c) OSI [0010] is not defined.
- (d) MTU [0013] appears to be a definition for the maximum packet length.
- (e) M [0038] is not defined or its definition is unclear. Objection (e) covers all instances of the unreferenced m within the disclosure.

Formalities:

- (a) Packing [0064]. For examination purposes, it will be assumed that the reference refers to the word packet.
- (b) "220 uses a (MSS – n) bytes as the size of packets." [0067]. The letter {a} between uses and (MSS – n) shows grammatical incorrectness.

### ***Drawings***

6. Objection to drawings, potential problems (*note: drawing objections must be corrected in the next response by applicant, it cannot be deferred, i.e., held in abeyance, or the application will be held ABANDONED*)

7. Figure 4: Neither m nor x is defined in block 430.

***Claim Rejections - 35 USC § 112***

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**9. Claims 1-13, and 18-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

10. With respect to claim 1, "indicating which packets are being sent" is indefinite in that it does not define the origin of "which packets" that are being sent. It should be clear whether the origins of the aforementioned packets are from a source internal or external to the system for controlling network congestion or from the device configured for communicating over the network. For purposes of examination, it will be assumed that further references to packets from dependent claims will refer to this reference.

11. With respect to claim 2 (line 2), claim 3 (line 2), and claim 13 (line 7), "a sender" is stated. For examination purposes, it will be assumed that a sender refers to the sender of claim 1 (line 4).

12. With respect to claim 18, "wherein maximum segment size (MSS) is modified" is indefinite because it doesn't distinctly define what entity's MSS value is being modified.

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13. Other claims that are not discussed carry the same indefiniteness and are rejected for the same reasons.

***Claim Rejections - 35 USC § 103***

23. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

24. **Claims 1-8, 10-17, 22-32, and 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimura et al. (Patent No US 6,125,397), hereinafter Yoshi, in view of Brown et al. (US Patent No 7,266,613 B1) hereinafter Brown and further in view of Samuels et al (PG-PUB US 2005/0005024 A1) hereinafter Sam.**

25. With respect to claim 1, Yoshi teaches a system for controlling network congestion, comprising: a device configured for communicating over a network (abstract); and for setting congestion control parameters for a sender in response to estimating network bandwidth (abstract & Col 2, Lines 11-25), but Yoshi doesn't teach packets being sent back-to-back. However, Brown teaches a system in which packets are sent back-to-back (Col 5, Lines 23-30 & Col 6, Lines 31-40, Brown sends back-to-back packet pairs and also uses a multiple measurement technique). It would have been obvious to a person, of ordinary skill in the art, at the time of the invention to

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modify the teachings of Yoshi by sending packets back-to-back or sequentially. The practice of doing so was in common use for bandwidth measurement.

Yoshi in view of Brown, however, does not teach explicitly indicating which packets are being sent back-to-back. However, Sam teaches a system indicating packets based off of their status ([0146] & [0147], in Sam's case, the status indicated is packet fragmentation that implies the packets are being sent sequentially). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Yoshi and Brown by utilizing the method of Sam to indicate packets being sent back-to-back as a method of reducing network congestion. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system.

26. As for claim 2, it is rejected on the same basis as claim 1 above. In addition, Sam discloses a means for estimating the number of back-to-back packets received within a receiver from a sender and utilizing that information in conjunction with the explicit back-to-back packet information ([0148], Sam keeps track of the sequence number of the indicated packets received).

27. As for claim 3, it is rejected on the same basis as claim 2 above. In addition Brown teaches wherein said estimating of back-to-back packets received from a sender comprises determining the amount of data within acknowledgement packets (ACKs)

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(Col 8, Lines 23-26) and/or determining whether transmissions were sent back-to-back in response to examining packet timestamps (Col 15, Lines 26-30).

28. As for claim 4, it is rejected on the same basis as claim 2 above. In addition, Sam teaches wherein said back-to-back estimates are utilized for checking the presence and validity of explicit back-to-back indications from a sender [0148]. Sam keeps track of sequence numbers.

29. As for claim 5, it is rejected on the same basis as claim 2 above. In addition, Sam teaches wherein said back-to-back estimates are utilized when explicit back-to-back packet indications being received from a sender are either not available or appear erroneous [0148]. Sam keeps track of sequence numbers.

30. As for claim 6, it is rejected on the same basis as claim 1 above. Yoshi teaches wherein said setting of congestion control parameters for a sender regulates packet transmissions by said sender in response to available bandwidth between said sender and the receiver (abstract & Col 2, Lines 11-25).

31. As for claim 7, it is rejected on the same basis as claim 1 above. In addition, Yoshi discloses wherein said network operates according to a transport control protocol (TCP) (Col 17, Lines 7-9).



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32. As for claim 8, it is rejected on the same basis as claim 1 above. In addition, Sam teaches wherein said explicit back-to-back packet indications comprise modulating the setting of at least one header bit indication back-to-back status of packets being transmitted ([0146] & [0147]).

33. As for claim 10, it is rejected on the same basis as claim 1 above. Adjusting the packet train size by adjusting the rates that acknowledgements are transmitted is a common practice used within a congestion window with respect to a slow start technique.

34. As for claim 11, it is rejected on the same basis as claim 1 above. It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize slow start threshold parameters as it was a practice in common use.

35. As for claim 12, it is rejected on the same basis as claim 1 above. It would have been obvious to a person of ordinary skill in the art at the time of the invention to a command window as it was a practice in common use.

36. As for claim 13, it is rejected on the same basis as claim 1 above. In addition, Yoshi teaches a computer within said device (Fig. 1) but doesn't teach packets being sent back-to-back. However, Brown teaches a system in which packets are sent back-to-back (Col 5, Lines 23-30 & Col 6, Lines 31-40, Brown sends back-to-back packet

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pairs in a multiple measurement technique). It would have been obvious to a person, of ordinary skill in the art, at the time of the invention to modify the teachings of Yoshi by sending packets back-to-back or sequentially. The practice of doing so was in common use for bandwidth measurement.

Yoshi in view of Brown, however, does not teach marking packets. However, Sam teaches a system marking packets based off of their status ([0146] & [0147], in Sam's case, the status indicated is packet fragmentation that implies the packets are being sent sequentially). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Yoshi and Brown by utilizing the method of Sam to indicate packets being sent back-to-back as a method of reducing network congestion. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system. The rest of the limitations in claim 13 are rejected for the same reasons as in claim 1 above.

37. With respect to claim 14, Brown teaches a system for controlling network congestion comprising a device configured for communication over a network. A processor within said device configured for controlling the sending and receiving of packets over said network; and programming configured for executing on said processor for estimating bandwidth and establishing congestion control parameters in response to said network bandwidth estimates (abstract & Col 2, Lines 11-25), but Yoshi doesn't teach marking packets to explicitly indicate if they are sent back-to-back

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and estimating network bandwidth in response to receipt of said explicit indications of back-to-back packets. However, Brown teaches a system in which packets are sent back-to-back (Col 5, Lines 23-30 & Col 6, Lines 31-40, Brown sends back-to-back packet pairs in a multiple measurement technique). It would have been obvious to a person, of ordinary skill in the art, at the time of the invention to modify the teachings of Yoshi by sending packets back-to-back or sequentially. The practice of doing so was in common use for bandwidth measurements.

Yoshi in view of Brown, however, does not teach marking packets to explicitly indicate if they are being sent back-to-back or estimating network bandwidth in response to receipt of said explicit indications of back-to-back packets. However, Sam teaches a system marking packets based off of their status ([0146] & [0147], in Sam's case, the status indicated is packet fragmentation that implies the packets are being sent sequentially). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Yoshi and Brown by utilizing the method of Sam to indicate packets being sent back-to-back as a method of reducing network congestion. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system. Furthermore, It would have been obvious to a person having ordinary skill in the art at the time of the invention to estimate network bandwidth based off of the marked packets. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system.

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38. As for claim 15, it is rejected on the same basis as claim 14 above. In addition, Yoshi discloses wherein said network communications are performed according to a transport control protocol (TCP) (Col 17, Lines 7-9).

39. As for claim 16, it is rejected on the same basis as claim 14 above. In addition, Sam teaches wherein bits in the header are used for marking packets with explicit back-to-back packet sending indications ([0146] & [0147]).

40. As for claim 17, it is rejected on the same basis as claim 16 above. In addition, Sam teaches wherein said header bits comprise unreserved bits according to the transport control protocol (TCP) standard [0146]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use unreserved bits in a header. Not doing so could corrupt the data being transmitted.

41. As for claim 22, it is rejected on the same basis as claim 14 above. It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize slow start threshold parameters as it was a practice in common use.

42. As for claim 23, it is rejected on the same basis as claim 14 above. It would have been obvious to a person of ordinary skill in the art at the time of the invention to a command window as it was a practice in common use.

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43. As for claim 24, it is rejected on the same basis as claim 14 above. Adjusting the packet train size by adjusting the rates that acknowledgements are transmitted is a common practice used within a congestion window with respect to a slow start technique.

44. As for claim 25, it is rejected on the same basis as claim 14 above. In addition, Sam teaches wherein said marking of packets is performed for every packet sent or performed in response to congestion ([0146], the prior art states the ack for every fragmented packet will be marked.).

45. With respect to claim 26, Yoshi teaches a system for controlling network congestion, comprising: a device configured for communicating over a network (abstract & Col 2, Lines 11-25); a processor within said device configured for controlling the sending and receiving of packets over said network; and programming configured for executing on said processor (Fig. 1), but Yoshi doesn't teach controlling the length of packet trains transmitted by the sender in response to altering the rate at which receipt acknowledgements (ACKs) are communicated from the receiver to said sender as based on estimated network bandwidth or estimating network bandwidth in response to receipt of explicit indications of back-to-back packets or utilizing back-to-back packet estimations. However, controlling the length of packet trains is a method of fixing network congestion. It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the method for efficient congestion controlling.

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Furthermore, Brown teaches a system in which packets are sent back-to-back (Col 5, Lines 23-30 & Col 6, Lines 31-40, Brown sends back-to-back packet pairs in a multiple measurement technique). It would have been obvious to a person, of ordinary skill in the art, at the time of the invention to send packets back-to-back or sequentially. The practice of doing so was in common use.

Yoshi in view of Brown, however, does not teach marking packets to explicitly indicate if they are being sent back-to-back or estimating network bandwidth in response to receipt of said explicit indications of back-to-back packets or utilizing back-to-back packet indications. However, Sam teaches a system marking packets based off of their status ([0146] & [0147], in Sam's case, the status indicated is packet fragmentation that implies the packets are being sent sequentially). It would have been obvious to a person having ordinary skill in the art at the time of the invention to utilize the method of Sam to indicate packets being sent back-to-back as a method of reducing network congestion. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system. Furthermore, It would have been obvious to a person having ordinary skill in the art at the time of the invention to estimate network bandwidth based off of the marked packets. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system.

46. With respect to claim 27, Yoshi teaches a method of using bandwidth estimation to improve transport control protocol (TCP) congestion control within a packet based

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network, comprising: estimating bandwidth and communicating congestion control parameters to a sender in response to said bandwidth estimates (abstract & Col 2, Lines 11-25), but Yoshi doesn't teach marking each packet, explicitly, that is being sent back-to-back to a receiver. Yoshi also doesn't teach packets explicitly marked as back-to-back packets. However, Brown teaches a system in which packets are sent back-to-back (Col 5, Lines 23-30 & Col 6, Lines 31-40, Brown sends back-to-back packet pairs in a multiple measurement technique). It would have been obvious to a person, of ordinary skill in the art, at the time of the invention to modify the teachings of Yoshi by sending packets back-to-back or sequentially as taught by Brown. The practice of doing so was in common use for bandwidth measurements.

Yoshi in view of Brown, however, does not teach explicitly indicating which packets are being sent back-to-back. However, Sam teaches a system indicating packets based off of their status ([0146] & [0147], in Sam's case, the status indicated is packet fragmentation that implies the packets are being sent sequentially). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Yoshi and Brown by utilizing the method of Sam to indicate packets being sent back-to-back as a method of reducing network congestion. Doing so would allow bandwidth estimators to make more accurate accounts for their distributions; Thus improving efficiency of the system.

47. As for claim 28, it is rejected on the same basis as claim 27 above. In addition, Sam discloses estimating the number of packets being received back-to-back and

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utilizing said packet number estimates in conjunction with the explicit back-to-back packet information when estimating bandwidth ([0148], Sam keeps track of the sequence number of the indicated packets received). \

48. As for claim 29, it is rejected on the same basis as claim 28 above. In addition, Brown teaches wherein said estimating of back-to-back packets received from a sender comprises estimating the amount of data within acknowledgement packets (ACKs) (Col 8, Lines 23-26) and/or estimating whether transmissions were sent back-to-back in response to examining a packet timestamps (Col 15, Lines 26-30).

49. As for claim 30, it is rejected on the same basis as claim 28 above. In addition, Sam teaches wherein said back-to-back estimates are utilized for checking the presence and validity of explicit back-to-back indications from a sender [0148]. Sam keeps track of sequence numbers.

50. As for claim 31, it is rejected on the same basis as claim 28 above. In addition, Sam teaches wherein said back-to-back estimates are utilized when explicit back-to-back packet indications being received from a sender are either not available or appear erroneous [0148]. Sam keeps track of sequence numbers.

51. As for claim 32, it is rejected on the same basis as claim 27 above. In addition, Sam teaches wherein said explicit back-to-back packet indications comprise modulating



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the setting of at least one header bit indication back-to-back status of packets being transmitted ([0146] & [0147]).

52. As for claim 36, it is rejected on the same basis as claim 27 above. Adjusting the packet train size by adjusting the rates that acknowledgements are transmitted is a common practice used within a congestion window with respect to a slow start technique.

53. As for claim 37, it is rejected on the same basis as claim 36 above. In addition, Brown teaches a predetermined number of packet receptions before packet acknowledgements. Utilizing this method we show that it is obvious that there will be a predetermined number of packet receptions. In most cases it is likely 1.

54. As for claim 38, it is rejected on the same basis as claim 27 above. It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize slow start threshold parameters as it was a practice in common use.

55. As for claim 39, it is rejected on the same basis as claim 27 above. It would have been obvious to a person of ordinary skill in the art at the time of the invention to a command window as it was a practice in common use.

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56. **Claims 9, 18-21, and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshi, in view of Brown and Samuels as applied to claims 1, 14, 27 above, and further in view of Huang et al (PG-PUB No US 2003/0103453 A1) hereinafter Huang.**

57. As for claim 9, it is rejected on the same basis as claim 1 above. The combination of Yoshi, Brown, and Sam do not disclose modulating the setting of the maximum segment size (MSS) for indicating back-to-back status of packets being transmitted. However, Huang teaches modulating the setting of the maximum segment size (MSS) for indicating back-to-back status of packets being transmitted [0068]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Yoshi, Brown, and Sam with the teachings of Huang in order to improve the data flow corresponding to available bandwidth.

58. As for claim 18, it is rejected on the same basis as claim 14 above. The combination of Yoshi, Brown, and Sam do not disclose that maximum segment size is modified. However, Huang teaches wherein maximum segment size is modified [0068]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Yoshi, Brown, and Sam with the teachings of Huang in order to improve the data flow corresponding to available bandwidth and utilizing that method as part of a congestion control scheme in accordance with claim

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14. Doing so improves the efficiency of a network. Furthermore, the rest of the limitations of the claim are rejected for the same reasons as claim 14.

59. As for claim 19, it is rejected on the same basis as claim 18 above. The combination of Yoshi, Brown, and Sam do not disclose the size of packets being sent is modulated. However, Huang teaches wherein the size of packets being sent is modulated [0068]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Yoshi, Brown, and Sam with the teachings of Huang in order to improve the data flow corresponding to available bandwidth and utilizing that method as part of a congestion control scheme. Doing so improves the efficiency of a network. Furthermore, the rest of the limitations of the claim are rejected for the same reasons as claim 18.

60. As for claim 20, it is rejected on the same basis as claim 19 above. The combination of Yoshi, Brown, and Sam do not disclose said size of packets being sent is reduced from the maximum segment size (MSS) value, However, Huang teaches wherein said size of packets being sent is reduced from the maximum segment size (MSS) value [0068]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Yoshi, Brown, and Sam with the teachings of Huang in order to improve the data flow corresponding to available bandwidth and utilizing that method of part of a congestion control scheme. Doing so

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improves the efficiency of a network. Furthermore, the rest of the limitations of the claim are rejected for the same reasons as claim 19.

61. As for claim 21, it is rejected on the same basis as claim 20 above. In addition, Sam teaches wherein said predetermined number of bits can be 1, 2, or 4 bits ([0146] & [0147]).

62. As for claim 33, it is rejected on the same basis as claim 27 above. The combination of Yoshi, Brown, and Sam do not disclose said explicit back-to-back packet indications comprise changing the size of packets being sent from the maximum segment size (MSS). However, Huang teaches wherein said explicit back-to-back packet indications comprise changing the size of packets being sent from the maximum segment size (MSS) [0068]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Yoshi, Brown, and Sam with the teachings of Huang in order to improve the data flow corresponding to available bandwidth value. Furthermore, the rest of the limitations of the claim are rejected for the same reasons as claim 27.

63. As for claim 34, it is rejected on the same basis as claim 27 above. The combination of Yoshi, Brown, and Sam do not disclose changing of the size of packets being sent is based on reducing the number of bits in a packet from the maximum segment size (MSS) value. However, Huang teaches wherein said changing of the size

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of packets being sent is based on reducing the number of bits in a packet from the maximum segment size (MSS) value [0068]. It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine the teachings of Yoshi, Brown, and Sam with the teachings of Huang in order to improve the data flow corresponding to available bandwidth and utilizing that method of part of a congestion control scheme. Doing so improves the efficiency of a network. Furthermore, the rest of the limitations of the claim are rejected for the same reasons as claim 27.

64. As for claim 35, it is rejected on the same basis as claim 34 above. In addition, Sam teaches wherein said predetermined number of bits can be 1, 2, or 4 bits ([0146] & [0147]).

### ***Conclusion***

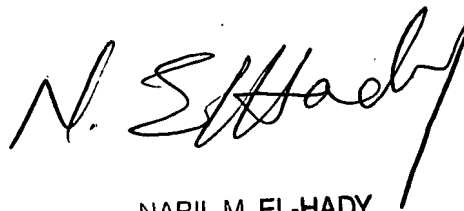
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Greene whose telephone number is (571) 270-3730. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nabil El-Hady can be reached on (571) 272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JLG  
Nov. 7, 2007

A handwritten signature in black ink, appearing to read 'N. El-Hady', with a long, sweeping vertical stroke extending downwards from the end of the signature.

NABIL M. EL-HADY  
SUPERVISORY PATENT EXAMINER